



# Blood Pressure Meds Can Affect COVID-19 Care

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FRIDAY, Sept. 11, 2020 (HealthDay News) -- People with high blood pressure tend to fare worse when infected with COVID-19, and the chronic condition can complicate their treatment in unexpected ways, new research shows.

For example, some COVID-19 patients must be taken off their blood pressure medications if their blood pressure falls to dangerously low levels, a condition called hypotension. Otherwise, they'll risk dying or developing serious kidney injury, a new study reports.

"These studies show if their blood pressure is low when they present at a hospital, then they have a higher risk of having worse complications and likely worse chance of survival," said Dr. Benjamin Hirsh, director of preventive cardiology at Northwell Health's Sandra Atlas Bass Heart Hospital in Manhasset, N.Y.

"It would be very unwise to keep them on these medications if they're hypotensive because of some theoretical benefit from being on them," Hirsh continued. "All you're doing is worsening the chance they'll have complications."

High blood pressure is the most common chronic health condition among COVID-19 patients who require hospitalization, according to one of three studies presented at a virtual meeting of the American Heart Association on Thursday.

Among more than 11,000 people across 22 studies from eight countries, 42% of COVID-19 patients had high blood pressure, the researchers found. The next most common chronic illness was diabetes, which affected 23% of the patients.

High blood pressure on its own was associated with a higher likelihood of death, the combined results showed.

However, it's not high blood pressure itself that presents the most danger to COVID-19 patients. Instead, it's when their blood pressure plummets that they are at their most vulnerable, a smaller second study suggests.

Death is twice as likely in COVID-19 patients who arrive at the hospital with mild low blood pressure, the study of nearly 400 people treated at an Italian hospital found.

Low blood pressure also was associated with kidney injury among the hospital's COVID-19 patients. Those with severe hypotension (under 95/50 mm Hg) were nine times more likely to suffer a kidney injury, while mild hypotension (lower than 120/70) was associated with four times the risk of kidney injury.

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Overall, having a history of high blood pressure increased a person's risk of kidney injury about fivefold, the Italian study found.

A third study digging deeper into this phenomenon found that common blood pressure meds were associated with an increased risk of death among COVID-19 patients.

The researchers tracked 172 people hospitalized for COVID-19 at the University of Miami/JFK Medical Center in Atlantis, Fla. The investigators found that 33% of people taking either angiotensin-converting enzyme inhibitors (ACE inhibitors) or angiotensin receptor blockers (ARBs) died in the hospital, compared with 13% of people not taking either drug.

COVID-19 patients were also more likely to land in the intensive care unit if they were taking one of these blood pressure meds -- 28% of those with a prescription versus 13% not taking either drug.

Dr. Vivek Bhalla, director of the Stanford Hypertension Center in California, said it's not very likely that these blood pressure medications in themselves are harmful to COVID-19 patients.

Instead, "the medicines are markers of the underlying disease for which they were prescribed," Bhalla said.

"For example, patients with [high blood pressure] or diabetes have worse outcomes with COVID-19, and these are the same patients that are commonly prescribed ACE inhibitors and ARBs," Bhalla said. "Other blood pressure medications may be associated with severity of COVID-19 if one considers that low blood pressure, perhaps due to use of these medications, may be associated with higher mortality."

If they contract COVID-19, people with high blood pressure should talk with their doctor for guidance on taking their medication, Bhalla said.

"In general, current data suggest that the medications themselves are not harmful, and the consequences of stopping these medications are well-documented," Bhalla said.

"However, if folks feel that they are not eating as much as they normally do, or have symptoms that lead to dehydration, such as vomiting, diarrhea, bleeding, or excessive sweating, then it is very reasonable to temporarily hold their higher blood pressure medication until their symptoms resolve."

Doctors should assess COVID-19 patients and not keep them on blood pressure meds if their blood pressure drops or they have other troubling symptoms, Bhalla said.

"If one is eating less than normal, then one is not eating their normal amount of salt or has dehydration, and their blood pressure will naturally be lower than when they are without symptoms," Bhalla continued. "Thus, in the short term, holding blood pressure medication is reasonable and may avoid a severe drop in blood pressure which, in the setting of COVID-19, may place the patient at risk of harm to their kidneys and other vital organs."

Research presented at meetings should be viewed as preliminary until published in a peer-reviewed journal.

## Sources ^

SOURCES: Benjamin Hirsh, MD, director, preventive cardiology, Northwell Health's Sandra Atlas Bass Heart Hospital, Manhasset, N.Y.; Vivek Bhalla, MD, director, Stanford Hypertension Center, Calif.; American Heart Association, virtual hypertension meeting, Sept. 10, 2020



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